Highlights

Interest in—and Knowledge about—Science and Technology

- **In National Science Foundation (NSF) surveys conducted during the past two decades, about 9 out of every 10 U.S. adults report being very or moderately interested in new scientific discoveries and the use of new inventions and technologies.** Those with more years of formal education and those who have taken more courses in science and mathematics are more likely than others to express a high level of interest in science and technology.
- **The number of people who feel either well informed or moderately well informed about science and technology is fairly low.** In 1999, only 17 percent of those surveyed described themselves as well informed about new scientific discoveries and the use of new inventions and technologies; approximately 30 percent thought they were poorly informed.
- **Most Americans know a little, but not a lot, about science and technology.** Between 1997 and 1999, however, public understanding of basic science concepts and terms increased slightly.
- **Although there was little change in the late 1990s in the percentage of correct responses to most of the survey questions pertaining to knowledge of basic science concepts and terms, the percentage of correct responses to three items did increase.** More people are able to define a molecule, the Internet, and DNA. The growing awareness of DNA is probably attributable to heavy media coverage of the use of DNA in crime-solving and in advancements in the field of medicine.
- **About three-quarters of Americans lack a clear understanding of the nature of scientific inquiry.** Although more than one-half have some understanding of probability, only one-third were familiar with how an experiment is conducted and less than one-quarter could adequately explain what it means to study something scientifically.

Public Attitudes Toward Science and Technology

- **There seems to have been a small, upward trend in positive attitudes toward science and technology.** Overall, data from the NSF survey show increasing percentages of Americans *agreeing* that "science and technology are making our lives healthier, easier, and more comfortable" and *disagreeing* that "we depend too much on science and not enough on faith."
- **Although no detectable change occurred in overall public attitudes toward genetic engineering in the late 1990s, there was an increase in the number of individuals expressing reservations among (1) college graduates and (2) that portion of the public classified as attentive to new medical discoveries.** Among the former, the percentage who agreed that the harms of genetic engineering are greater than the benefits increased from 20 percent in 1995 to 29 percent in 1999. Among the latter group, the percentage rose from 30 percent in 1997 to 36 percent in 1999.

International Comparisons

- **North Americans and Europeans appear to have more favorable attitudes toward science and technology than the Japanese.** In addition, U.S. residents seem to harbor fewer reservations about science and technology than their counterparts in Europe, Canada, and Japan.
- **In North America, Europe, and Japan, university-educated citizens have the most positive attitudes toward science and technology, and the least reservations, whereas those who did not complete high school have the least favorable attitudes and the most reservations.** The inverse relationship between education and reservations about science and technology seems to be strongest in the United States, compared with three other sociopolitical systems.

Use of Computers and Computer Technology in the United States

- **In 1999, for the first time ever, a majority (54 percent) of American adults had at least one computer in their homes.** The percentage has been rising steadily since 1983, when only 8 percent had computers in their homes.
- **Approximately one-third of Americans subscribed to an online service and had home e-mail addresses in 1999.** Among those with access to the Internet, the amount of time spent using e-mail and visiting Web sites increased from an average of 80 hours per year in 1995 to approximately 270 hours in 1999.
- **The number of people without access to a computer either at home or at work fell substantially between 1983 and 1999—from 70 percent down to 34 percent.** However, more than 70 percent of those without high school diplomas did not have access to a computer either at home or at work in 1999.

The Relationship Between Science and the Media: Communicating with the Public

- **The science community and the news media are missing opportunities to communicate with each other and the public.** A recent study identified several problems including (1) scientists' distrust of the media, (2) a perceived lack of public interest in science, (3) communication barriers, and (4) the need for a better informed and educated public. Both scientists and the media could do a better job of communicating with the public so that taxpayers gain a better understanding of what they are getting from their investment in research and development (R&D).
- **Belief in paranormal phenomena, including astrology, extrasensory perception, and alien abductions, is fairly widespread.** Such beliefs may reflect a lack of scientific literacy or indicate a dearth of critical thinking skills needed not only to understand what is going on in the world, but also to make well-informed choices at the ballot box and in other day-to-day living activities. Depictions of paranormal activities in the entertainment media probably exacerbate the problem.